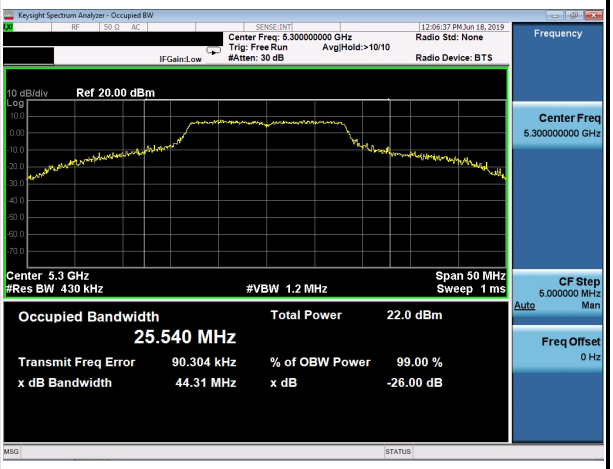
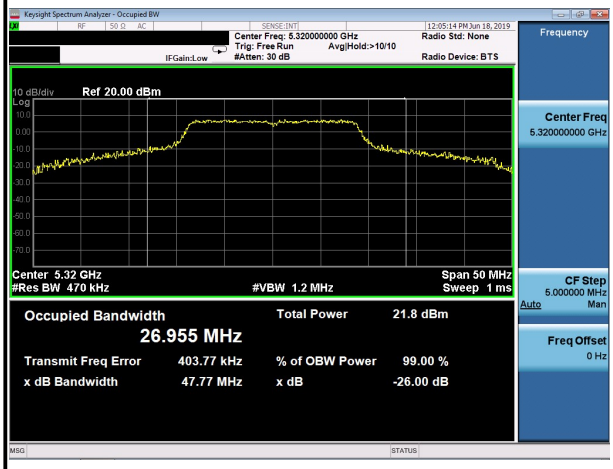
26dB & 99% Occupied Bandwidth spectrum plot of value:

802.11n HT20 5260MHz

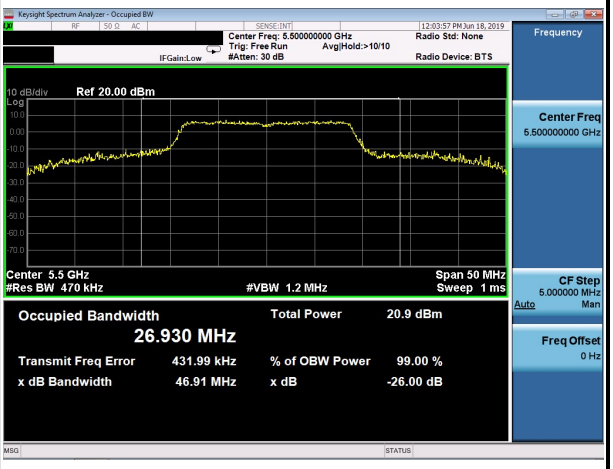
802.11n HT20 5300MHz



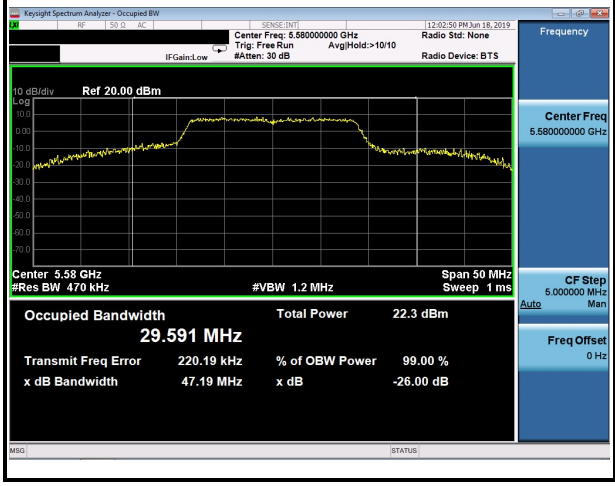
802.11n HT20 5320MHz



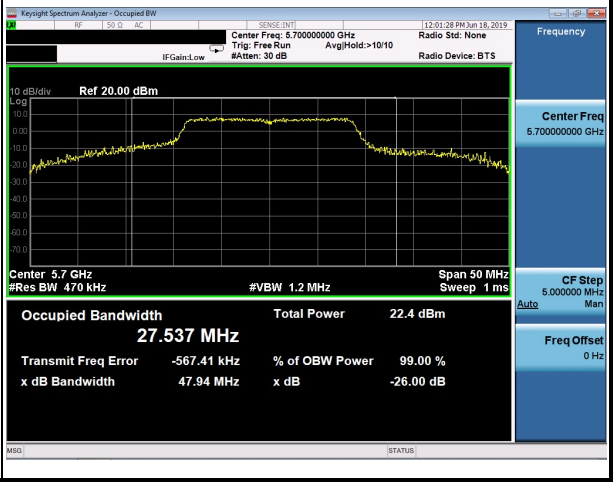
802.11n HT20 5500MHz



802.11n HT20 5580MHz



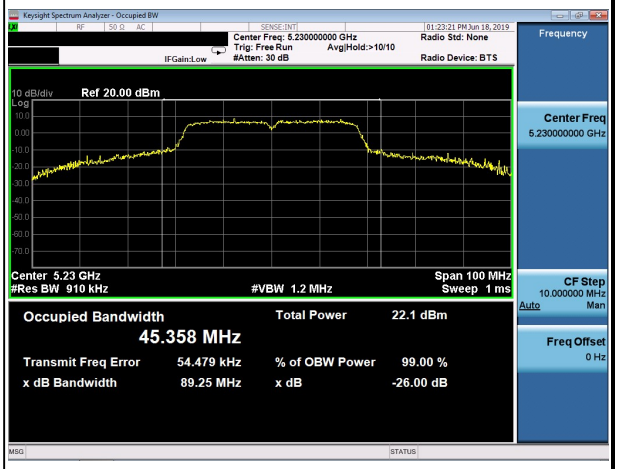
802.11n HT20 5700MHz



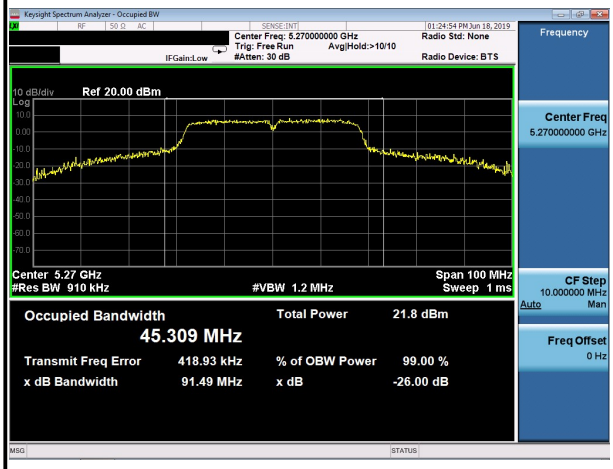
26dB & 99% Occupied Bandwidth spectrum plot of value:

802.11n HT40 5190MHz

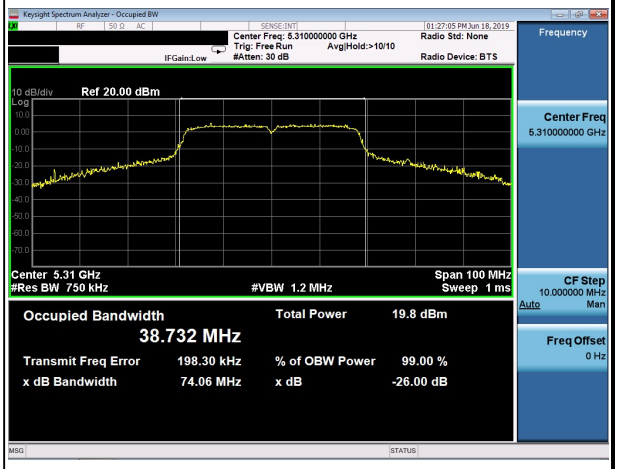
802.11n HT40 5230MHz



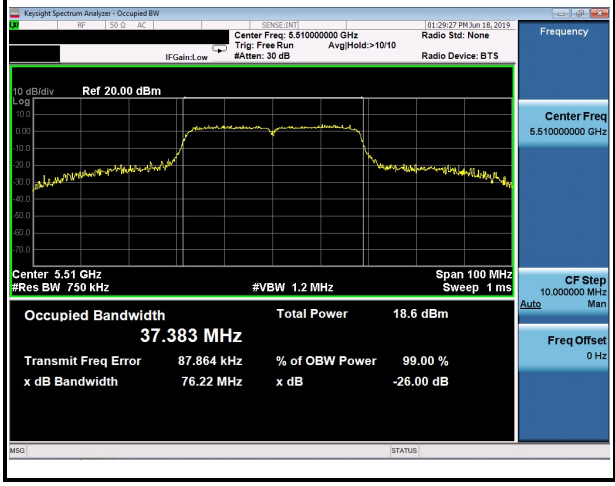
802.11n HT40 5270MHz



802.11n HT40 5310MHz

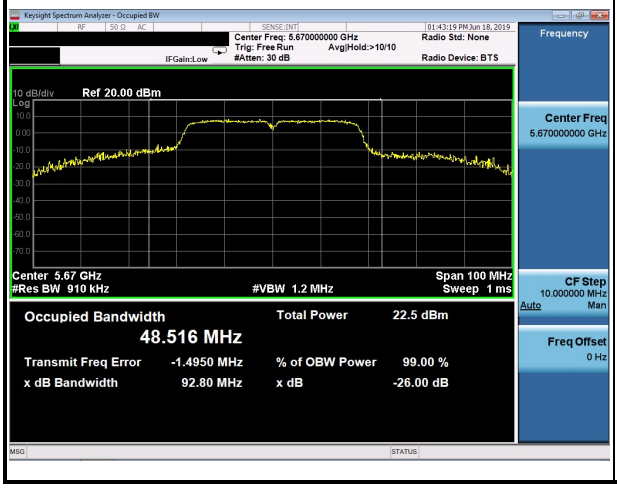


802.11n HT40 5510MHz



802.11n HT40 5550MHz

26dB & 99% Occupied Bandwidth spectrum plot of value:

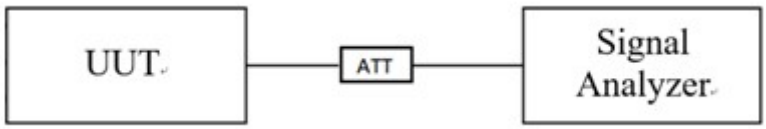
802.11n HT40 5670MHz	
	

2.3 Power Spectral Density Measurement

2.3.1 Limit

1. For frequency Band 5150~5250MHz:
   (1) Outdoor access point : 17 dBm / MHz
   (2) Indoor access point : 17 dBm / MHz
   (3) Fixed point-to-point access point : 17 dBm / MHz
   (4) Client device : 11 dBm / MHz
2. For frequency Band 5250~5350MHz:
   11 dBm / MHz
3. For frequency Band 5470~5725MHz:
   11 dBm / MHz
4. For frequency Band 5725~5850MHz:
   30 dBm / 500kHz
5. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

2.3.2 Test Setup



2.3.3 Test Procedure

1. For frequency band 5150~5250, 5250~5350, 5470~5725MHz
   Method SA-2
   (1) Measure the duty cycle D of the transmitter output signal.
   (2) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal
   (3) Spectrum analyzer set:
      a) RBW = 1 MHz
      b) VBW = 3 MHz
      c) Sweep time = auto
      d) Detector = RMS
      e) Number of points in sweep ≥ [2 span / RBW].
      (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
      f) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
2. For frequency band 5725~5850 MHz
   Method SA-2
   (1) Measure the duty cycle D of the transmitter output signal.
   (2) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal
   (3) Spectrum analyzer set:
      a) RBW = 100 kHz
      b) VBW = 300 kHz
      c) Sweep time = auto
      d) Detector = RMS
      e) Number of points in sweep ≥ [2 span / RBW].
      (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
      f) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.

2.3.4 Test Result

For 5150 MHz ~ 5250 MHz, 5250 MHz ~ 5350 MHz and 5470 MHz ~ 5725 MHz;

802.11a

Frequency (MHz)	PSD (dBm)		Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
	Chain A	Chain B			
5180	3.30	--	--	< 11	Pass
5220	3.81	--	--	< 11	Pass
5240	3.79	--	--	< 11	Pass
5260	3.64	--	--	< 11	Pass
5300	3.83	--	--	< 11	Pass
5320	3.25	--	--	< 11	Pass
5500	3.80	--	--	< 11	Pass
5580	4.82	--	--	< 11	Pass
5700	4.71	--	--	< 11	Pass

Remark: PSD = Reading value on a spectrum analyzer + cable loss + duty factor

802.11n HT20

Frequency (MHz)	PSD (dBm)		Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
	Chain A	Chain B			
5180	2.59	--	--	< 11	Pass
5220	2.38	--	--	< 11	Pass
5240	3.30	--	--	< 11	Pass
5260	2.86	--	--	< 11	Pass
5300	3.15	--	--	< 11	Pass
5320	2.71	--	--	< 11	Pass
5500	2.68	--	--	< 11	Pass
5580	4.02	--	--	< 11	Pass
5700	4.03	--	--	< 11	Pass

Remark: PSD = Reading value on a spectrum analyzer + cable loss + duty factor

802.11n HT40

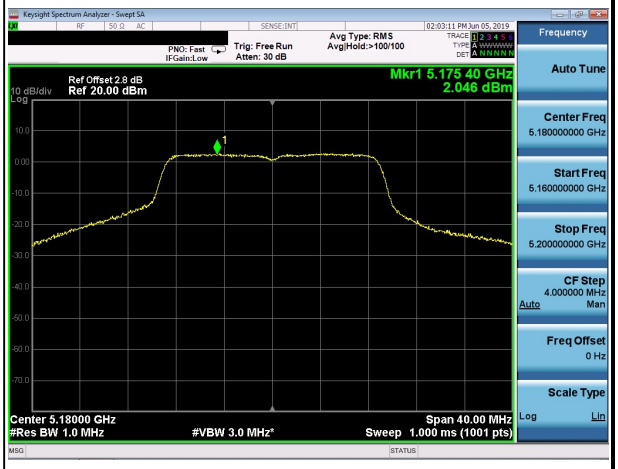
Frequency (MHz)	PSD (dBm)		Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
	Chain A	Chain B			
5190	-2.91	--	--	< 11	Pass
5230	0.34	--	--	< 11	Pass
5270	0.22	--	--	< 11	Pass
5310	-2.75	--	--	< 11	Pass
5510	-3.44	--	--	< 11	Pass
5550	1.55	--	--	< 11	Pass
5670	1.03	--	--	< 11	Pass

Remark: PSD = Reading value on a spectrum analyzer + cable loss + duty factor

Power Spectral Density spectrum plot of value:

802.11a 5180MHz	802.11a 5220MHz
802.11a 5240MHz	**802.11a 5260MHz**
802.11n a 5300MHz	**802.11n a 5320MHz**

Power Spectral Density spectrum plot of value:

802.11a 5500MHz	802.11a 5580MHz
802.11a 5700MHz	**802.11n HT20 5180MHz**
	
802.11n HT20 5220MHz	**802.11n HT20 5240MHz**